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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,700	01/30/2001	Hiroshi Okamoto	010064	9493

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EXAMINER

AHMED, SHEEBA

ART UNIT

PAPER NUMBER

1773

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/771,700

Examiner

Sheeba Ahmed

Applicant(s)

OKAMOTO ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-05, 7, and 8 is/are rejected.
- 7) ☐ Claim(s) 6,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed on February 12, 2003 (Paper No. 5) disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of US Patent 6,423,408 B2 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Amendment and Arguments

2. Amendments to claim 1 have been entered in the above-identified application. Applicant's arguments with respect to claims 1-5, 7, and 8 have been considered but are moot in view of the new ground(s) of rejection.

Claim Language

3. Applicants have deleted the phrase "finely divided" from claim 1 in response to the rejection of claims 1-3 under 35 USC 112, second paragraph on the grounds that such as phrase is a relative phrase and renders the claim indefinite. Hence, the rejection of claims 1-3 under 35 USC 112, second paragraph has been withdrawn. However, the phrase "finely divided" also appears in claims 4-6, 8, and 10 and the Examiner ***recommends*** deleting such a phrase from claim 4-6, 8, and 10 to maintain consistency in all the pending claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda et al. (US 6,465,114 B1) in view of Panush (US 5,830,567).

Honda et al. disclose zinc coated steel sheets having a chromium-free base metal treatment film layer composition (**corresponding to the functional composition or functional molding of the claimed invention and thus meeting the limitations of claim 2**) comprising tannin or tannic acid (**corresponding to the plant-originated functional component of the claimed invention**) is a base of resin (**corresponding to the resin, R, of claim 4**), particularly an aqueous resin. Examples of aqueous resins that may be used include polyolefin resins, acrylic olefin resins, polyurethane resins, polycarbonates, epoxy resins, polyesters, phenols and other thermosetting resins (Column 13, lines 29-61). The tannin or tannic acid may be catechin (Column 14, lines 2-5). Silica (**corresponding to the ceramics component, C, of the claimed invention and thus meeting the limitations of claim 3**) may be added to the composition to improve resistance to abrasive scratching, coating adherence, and corrosion resistance (Column 14, lines 17-18) Pigments may be added to the composition as needed (Column 14, lines 34-35).

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Honda et al. do not specifically disclose that a tabular mineral such as mica or talc may be added to the chromium-free base metal treatment film layer composition.

However, Panush discloses a coating composition containing a polymeric binder and very fine mica having a particle size ranging from 0.1 to 15 microns (Column 2, lines 7-21). Incorporating fine mica particles into the coating softens the aesthetics and yields a subdued gentle appearance with great depth without producing a metallic effect or color travel (Column 2, lines 45-52). The mica has a tendency to align itself parallel to the surface of the coating and provides an inert and flexible shield against chemical attack and solar radiation. The mica flakes provide enhanced properties such as washability, adhesion, film life, as well as resistance to chalking, checking, and corrosion. Examples of substrates that may be coated with such a mica coating include steel substrates (Column 3, lines 20-48).

Accordingly, it would have been obvious to one having ordinary skill in the art to add fine mica particles to the chromium-free base metal treatment film layer as disclosed by Honda et al. given that Panush specifically teaches that mica may be added to resin coatings to provide an inert and flexible shield against chemical attack and solar radiation, to provide enhanced properties such as washability, adhesion, film life, resistance to chalking, checking, and corrosion as well as to soften the aesthetics and yield a subdued gentle appearance with great depth without producing a metallic effect or color travel.

Allowable Subject Matter

5. Claims 6, 9, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 6 recites a functional molding containing a resin, a plant-originated functional component, a tabular mineral having a low hardness and cleavage, and a ceramics component wherein the functional molding is a core-sheath joining type or bimetal joining type molding constructed of an internal component X and an external component Y wherein the resin components of the internal component X and the external component Y may be a single resin or a combination of two resins and wherein the plant-originated functional component A, the tabular mineral and the ceramics component are formulated into both the internal component X and the external component Y. Claims 9 and 10 incorporate all the limitations of claims 5 and 6.

The closest prior art is US 6,423,408 B2 however the rejection of claims 6, 9, and 10 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 4 of U.S. Patent No. 6,423,408 B2 in view of Cochran II, et al. (US 6,211,500 B1) has been overcome by the filing of a terminal disclaimer.

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Conclusion

6. inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (703)305-0594. The examiner can normally be reached on Mondays and Thursdays from 8am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703)308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-5408 for regular communications and (703)305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-5665.



Sheeba Ahmed

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May 5, 2003